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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,946	03/19/2002	Kyung-geun Lee	1293.1320	6311

49455 7590 11/14/2006
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EXAMINER

GIESY, ADAM

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/099,946

Applicant(s)

LEE ET AL.

Examiner

Adam R. Giesy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 8/22/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 46-71 are rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. (hereinafter Ito – US Pat. No. 5,881,032).

Regarding claim 46, Ito discloses an optical disc comprising: first and second recording layers on which data are recordable and/or reproducible, the first and second recording layers having opposite track spiral directions and physical addresses recorded thereon (see Figures 1A and 1B); and recorded addresses of smallest recording units recorded on the optical disc, wherein: the recorded addresses are recorded during recording of the smallest recording units on the optical disc, and on the first and second recording layers, the recorded addresses increase or decrease together with the physical addresses (see Figure 1D – the quality of having the recorded

address increase as the physical address increases is inherent to the figure, as the recording address would inherently increase in the direction of reproduction [from inner to outer radius], as would the physical address).

Regarding claim 47, Ito discloses all of the limitations of claim 46 as discussed in the claim 46 rejection above and further that the first recording layer the recorded addresses and the physical addresses increase together from an inner radius of the disc to an outer radius of the optical disc; and on the second recording layer, the recorded addresses and the physical addresses increase together from the outer radius of the disc to the inner radius of the optical disc (see Figure 3).

Regarding claim 48, Ito discloses an optical disc, comprising: first and second recording layers on which data are recordable and/or reproducible, the first and second recording layers having opposite track spiral directions and physical addresses recorded thereon (see Figures 1A and 1B); and recorded addresses of smallest recording units recorded on the optical disc, wherein: the recorded addresses are recorded during recording of the smallest recording units on the optical disc, and on at least one the first and second recording layers, the recorded addresses and the physical addresses increase or decrease oppositely (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 49, Ito discloses all of the limitations of claim 48 as discussed in the claim 48 rejection above and further that on the first recording layer, the recording address increases as the physical address decreases from an inner radius of the disc to

an outer radius of the disc; and on the second recording layer, the recording address increases as the physical address decreases from the outer radius of the disc to the inner radius of the disc (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 50, Ito discloses an optical disc drive comprising: an optical disc comprising first and second recording layers on which data are recordable and/or reproducible and having physical addresses recorded thereon, and recorded addresses of smallest recording units recorded on the optical disc, wherein: the recorded addresses are recorded during recording of the smallest recording units, and on the first and second recording layers, the recorded addresses increase or decrease together with the physical addresses (see Figure 1D – the quality of having the recorded address increase as the physical address increases is inherent to the figure, as the recording address would inherently increase in the direction of reproduction [from inner to outer radius], as would the physical address); and a reader/writer which reads and/or writes the smallest recording units to/from the optical disc (see column 3, lines 49-60).

Regarding claim 51, Ito discloses all of the limitations of claim 50 as discussed in the claim 50 rejection above and further that the first recording layer, the recorded addresses and the physical addresses increase or decrease from an inner radius of the optical disc to an outer radius of the optical disc (see Figure 3); and on the second recording layer, the recorded addresses and the physical addresses increase or

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decrease from the outer radius of the optical disc to the inner radius of the optical disc (see Figure 3).

Regarding claim 52, Ito discloses all of the limitations of claim 51 as discussed in the claim 51 rejection above and further that the first and second recording layers have a same track spiral direction (see Figures 13A and 13B).

Regarding claim 53, Ito discloses all of the limitations of claim 51 as discussed in the claim 51 rejection above and further that the first and second recording layers have an opposite track spiral direction (see Figures 1A and 1B).

Regarding claim 54, Ito discloses an optical disc drive, comprising: an optical disc comprising first and second recording layers on which data are recordable and/or reproducible and having physical addresses recorded thereon, and recorded addresses are recorded during recording of the smallest recording units recorded on the optical disc wherein: the recorded addresses are recorded during recording of the smallest recording units on the disc, and on at least one of the first and second recording layers, the recorded addresses and the physical addresses increase or decrease oppositely (the quality of having the recorded address increase as the physical address decreases is inherent, as the recording address would inherently increase in the direction of reproduction [from inner to outer radius of vice versa] dependent upon the direction of reproduction. The physical address would behave in the same way); and a reader/writer which reads and/or writes data to/from the disc (see column 3, lines 49-60).

Regarding claim 55, Ito discloses all of the limitations of claim 54 as discussed in the claim 54 rejection above and further that the first recording layer, the recorded addresses decrease as the physical addresses increase from an inner radius of the optical disc to an outer radius of the optical disc; and on the second recording layer, the recorded addresses decrease as the physical addresses increase from the outer radius of the optical disc to the inner radius of the optical disc (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 56, Ito discloses all of the limitations of claim 55 as discussed in the claim 55 rejection above and further that the first and second recording layers have a same track spiral direction (see Figures 13A and 13B).

Regarding claim 57, Ito discloses all of the limitations of claim 55 as discussed in the claim 55 rejection above and further that the first and second recording layers have an opposite track spiral direction (see Figures 1A and 1B).

Regarding claim 58, Ito discloses all of the limitations of claim 54 as discussed in the claim 54 rejection above and further that the first recording layer, the recorded addresses increase as the physical addresses decrease from an inner radius of the optical disc to an outer radius of the optical disc; and on the second recording layer, the recorded addresses increase as the physical addresses decrease from the outer radius of the optical disc to the inner radius of the optical disc (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 59, Ito discloses all of the limitations of claim 58 as discussed in the claim 58 rejection above and further that the first and second recording layers have a same track spiral direction (see Figures 13A and 13B).

Regarding claim 60, Ito discloses all of the limitations of claim 58 as discussed in the claim 58 rejection above and further that the first and second recording layers have an opposite track spiral direction (see Figures 1A and 1B).

Regarding claim 61, Ito discloses a method of assigning recorded addresses of smallest recording units recorded during recording on an optical disc having first and second recording layers and physical addresses recorded thereon, the method comprising: assigning the recorded addresses so that the recorded addresses increase or decrease together with the physical addresses (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 62, Ito discloses all of the limitations of claim 61 as discussed in the claim 61 rejection above and further that assigning the recorded addresses on the first recording layer so that the recording addresses and the physical addresses increase or decrease from an inner radius of the disc to an outer radius of the disc; and assigning the recorded addresses on the second recording layer so that the recorded addresses and the physical addresses increase or decrease from the outer radius of the disc to the inner radius of the disc (see Figure 3).

Regarding claim 63, Ito discloses all of the limitations of claim 62 as discussed in the claim 62 rejection above and further that the first and second recording layers have a same track spiral direction (see Figures 13A and 13B).

Regarding claim 64, Ito discloses all of the limitations of claim 62 as discussed in the claim 62 rejection above and further that the first and second recording layers have an opposite track spiral direction (see Figures 1A and 1B).

Regarding claim 65, Ito discloses a method of assigning recorded addresses of smallest recording units recorded during recording on an optical disc having first and second recording layers and physical addresses recorded thereon, the method comprising: assigning the recorded addresses so that on at least one of the first and second recording layers, the recorded addresses and the physical addresses increase or decrease oppositely (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 66, Ito discloses all of the limitations of claim 65 as discussed in the claim 65 rejection above and further that assigning the recorded addresses on the first recording layer so that the recorded addresses decrease as the physical addresses increase from an inner radius of the disc to an outer radius of the disc; and assigning the recorded addresses on the second recording layer so that the recording addresses decrease as the physical addresses increase from the outer radius of the disc to the inner radius of the optical disc (see column 5, lines 23-32 – Ito provides for the recorded

address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 67, Ito discloses all of the limitations of claim 66 as discussed in the claim 66 rejection above and further that the first and second recording layers have a same track spiral direction (see Figures 13A and 13B).

Regarding claim 68, Ito discloses all of the limitations of claim 66 as discussed in the claim 55 rejection above and further that the first and second recording layers have an opposite track spiral direction (see Figures 1A and 1B).

Regarding claim 69, Ito discloses all of the limitations of claim 65 as discussed in the claim 65 rejection above and further that assigning the recorded addresses so that on the first recording layer the recorded addresses increase as the physical addresses decrease from an inner radius of the disc to an outer radius of the disc (see Figure 1D – the quality of having the recorded address increase as the physical address increases is inherent to the figure, as the recording address would inherently increase in the direction of reproduction [from inner to outer radius], as would the physical address); and assigning the recorded addresses on the second recording layer so that the recorded addresses increase as the physical addresses decrease from the outer radius of the disc to the inner radius of the disc (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 70, Ito discloses all of the limitations of claim 69 as discussed in the claim 69 rejection above and further that the first and second recording layers have a same track spiral direction (see Figures 13A and 13B).

Regarding claim 71, Ito discloses all of the limitations of claim 69 as discussed in the claim 69 rejection above and further that the first and second recording layers have an opposite track spiral direction (see Figures 1A and 1B).

Response to Arguments

4. Applicant's arguments filed 8/3/2006 have been fully considered but they are not persuasive.

On pages 8 and 9 of the Remarks, filed on 8/3/2006, Applicant argues that the Ito reference (US Pat No. 5,881,032) does not disclose the relationship between the recorded addresses and the physical addresses. Applicant also asserts, and the Examiner agrees, that sector addresses inherent to the disc are established during manufacture, not recording (as discussed on page 9 of the Remarks). Examiner asserts that the physical addresses increase in parallel with the sector addresses. Thus as the sector addresses increase, so then do the frame addresses found within that sector. In view of the above discussion, the Examiner is reading that the sector addresses as recorded by Ito are the recorded addresses, thus Ito inherently implies a relationship between the recorded and physical addresses.

Furthermore, Applicant argues that Ito does not disclose recording addresses "during recording of the smallest recording units on the optical disc." Examiner asserts that this is inherent as each frame of information on the optical disc has its own address

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and is located within a sector. Although Ito discloses recording sector address information, it can be readily understood by one skilled in the art that the frame addresses of the user data would inherently increase or decrease with the recorded sector address. Thus the claimed limitations are inherently met by Ito.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

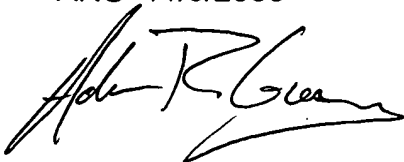
a. Itoi (US Pat. No. 5,995,458) discloses a method of recording frame addresses in any reproduction direction on an optical disc in order to arrange a high density optical disc.

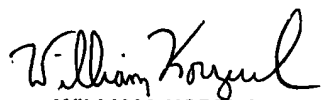
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam R. Giesy whose telephone number is (571) 272-7555. The examiner can normally be reached on 8:00am- 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ARG 11/9/2006




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